

Generative AI and The Role Students Need to Play For Effective Outcomes: Reflections from our workshops, 2023-2026

Slide 1: Background, Learning Objectives, What Has Changed 2023-2026

This poster highlights content from NU Library student workshops offered in 2023-2026. The creation of this student-focused workshop was motivated by faculty and student requests for guidance, beginning in 2023.

- Workshop Learning Objectives 2023-2026:**
- Educate students on what GenAI is and how it works;
 - What GAI is useful for as well as its limitations in the research process;
 - Active steps students must take if they choose to use GenAI

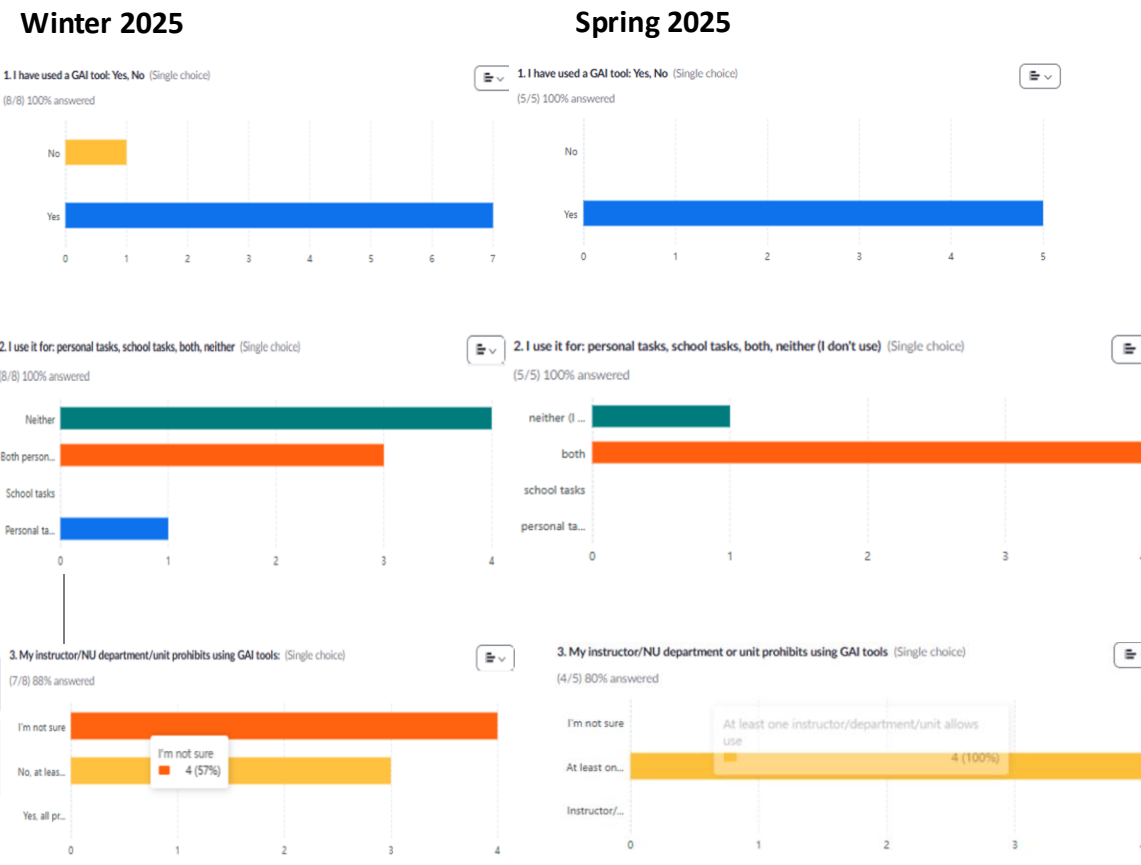
- TeachX 2026 Poster Learning Objectives:**
- What has changed in our workshops
 - Pros and Cons of GenAI
 - Steps to take if using GenAI

Workshop Polls
Fall, Winter, Spring: 2024-2025

Q1	Yes	No	Total
Have you used GAI?	22	3	25

Q2	Personal	School	Both	Neither	Total
How have you used GAI?	6	1	12	6	25

Q3	Allows	Prohibits	Not Sure	Total
My instructor or dept allows GAI use.	11	4	10	25



Some things change...

- Most students have used GenAI and understand the basics, how it works
- GAI can be useful as a study buddy: create flashcards, podcasts, etc.
- Some GenAI integration in databases (EBSCO; NU Digital Collections; Statista)
- Some academic publishers are licensing AI technology to provide an improved experience (Wiley & Perplexity, Wiley & Anthropic)
- More consideration before using

Some things stay the same...

- Concerns: bias; environmental harms; loss of critical thinking
- Instructors are seeing a lot of AI-generated work turned in that students present as their own
- GAI tools still hallucinating/producing fake citations



libraries.nu/TEACHx26

NU Library Gen AI Workshop Team:
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Slide 2: Your Role with AI

Choosing appropriate tools

- Coverage of subject disciplines (humanities v. sciences, etc.)
- Data privacy
- Text generators (Chatgpt) vs. Source discovery tools (Elicit)
- Currency: live internet or not?
- University policies
- Natural language vs. Keywords
- Free vs. Fee

Semantic Scholar

Input: keywords

NOTE: Better coverage in **computer science** and **medicine** compared to **arts and humanities**, and somewhere in-between for **social sciences**.



Perplexity (academic version)

Input: natural language

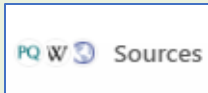
NOTE: Output drawn from web content, some licensed content and user interactions. **Not comprehensive academic information coverage on this topic.**



Recent changes in AI tools

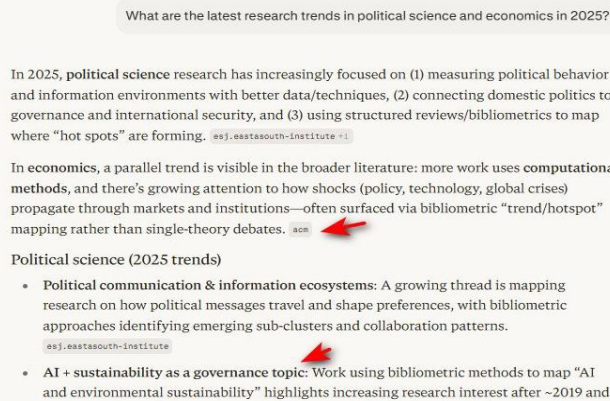
For example...

- Perplexity Academic
 - Free academic version summarizes sources with embedded citations
- Chatgpt and embedded citations
 - Embedded citations only appear with:
 - Time sensitive queries
 - Factual verifications
 - Source requests



Example of subject bias in Perplexity:

The output is mainly focused on tech trends on Econ and Poli Sci



Crafting prompts Consider...

- Task
- Audience
- Specificity
- Persona/Role
- Flow/Order
- Exemplars
- Format
- Tone

An effective prompt can even assist with your research process or search strategy...

Prompt:

You are an academic librarian at a university [Role]. Suggest a search strategy for finding sources on Alfred Adler's theories on the only child compared with Carl Jung's theories. [Task] Include useful keyword search strings. Also suggest where to search. [Specificity / Exemplars]



Copilot

Certainly! Here's a detailed search strategy to help you find scholarly research sources on Alfred Adler's theories on the only child compared with Carl Jung's theories:

Search Strategy

1. Identify Key Concepts:

- Adler's Theory: Alfred Adler. Adlerian psychology, birth order theory, individual psychology, only child, family constellation
- Jung's Theory: Carl Jung, analytical psychology, collective unconscious, archetypes, individuation, personality types
- **Comparative Terms: comparison, contrast, differences, similarities**

2. Construct Search Strings:

- Basic Search Strings:

- **Where to Search**

1. Academic Databases:

- Google Scholar: A comprehensive source for scholarly articles, theses, books, and conference papers.
- **PsycINFO: A database of abstracts and citations of behavioral and social science research.**
- JSTOR: Provides access to thousands of academic journals, books, and primary sources.
- PubMed: For articles related to psychology and psychiatry.
- ERIC (Education Resources Information Center): For educational research and information.

2. University Libraries:

- Access online databases and journals through your university's library portal.
- Use interlibrary loan services to access materials not available in your library.

3. Professional Organizations:

- American Psychological Association (APA): Offers a wealth of resources, including journals and books on psychology.
- Association for Psychological Science (APS): Provides access to research articles and publications.

4. Books and E-books:

- Search for books on Adlerian and Jungian theories in your library catalog or online bookstores.
- Use platforms like Google Books or Amazon to find relevant texts.

Verifying accuracy

Cross-check with a search engine or library research database. Does output reflect accuracy compared with real sources?

Check for bias, missing information, inaccuracy, lack of currency, lack of depth.

If output includes footnotes or generated citations, are they accurate or real sources?

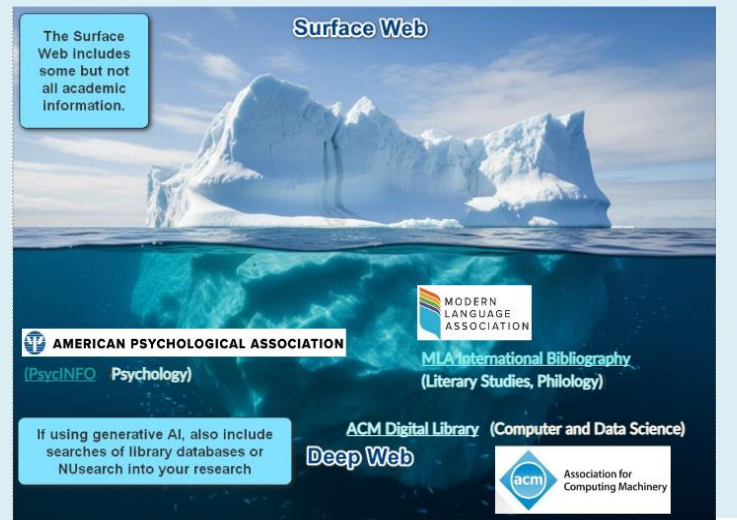
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Slide 3: Your Role with AI, pt. 2

Supplement AI with Library resources Why?

- LLMs do a better job of covering the **surface web** than the **deep web**.
- Discover important sources that AI misses, including information in library databases, in the **deep web**, many of which are produced and contributed to via **scholarly societies and organizations** and **academic publishers**.

[Ask a Librarian](#) if help is needed!



Writing

- Check syllabi and NU's Academic Integrity Policy
- Be authentic: note the concept AI gives you, rewrite in your own words
- Confirm content: open browser tab and search other sources
- Use of spell check and grammar check okay
- Express your ideas in your own voice
- Option to Omit GAI in search results: Google toolbar More > Web; [Duck Duck Go](#)

Citing

- Use your professor's preferred format (APA, Chicago, MLA, others)
- Verify it: confirm the location of the information – test your written citation to see if you can access the item successfully
- Use endorsed models to confirm your formatting ([Purdue OWL](#) or the official [APA](#), [MLA](#), etc., sites)

Citing Generative AI

- Always declare your use of AI.
- Use citation style sites for help: [APA](#) [CMOS](#) [MLA](#)

AI in your workflow

- With so many tools available to use, it's up to you to manage your workflow
- These tools do not share information or your chat history with each other
- Keep track of which tool you used for which task and when it was used
- If changing tools, you'll probably need to provide context to pick up where you left off.

Generative AI “black box”, ethics, bias and harm

- The model's internal systems are not visible or publicly known (e.g. algorithms, training data)
- These can be great tools for research and productivity, but users need to check and review for their failures, biases, and potential harm they can create
- [Casey Fiesler's AI Ethics and Policy News list](#)



Jameel
Clinic



AI medical tools downplay symptoms in women and ethnic minorities

Research by the MIT's Jameel Clinic in June found that AI models, such as OpenAI's GPT-4, Meta's Llama 3 and Palmyra-Med — a healthcare-focused LLM — recommended a much lower level of care for female patients, and suggested some patients self-treat at home instead of seeking help.

A separate study by the MIT team showed that OpenAI's GPT-4 and other models also displayed answers that had less compassion towards Black and Asian people seeking support for mental health problems.
[AI medical tools downplay symptoms in women and ethnic minorities \(2025\)](#)

NU AI Policies and Support

- [Northwestern Guidance on the Use of Generative AI](#)
- [Northwestern Libraries' Generative AI Research Guide](#)
- [Research Computing and Data Services](#)
Expertise with [Microsoft Azure](#)
- <https://policies.northwestern.edu/docs/data-classification-policy.pdf>

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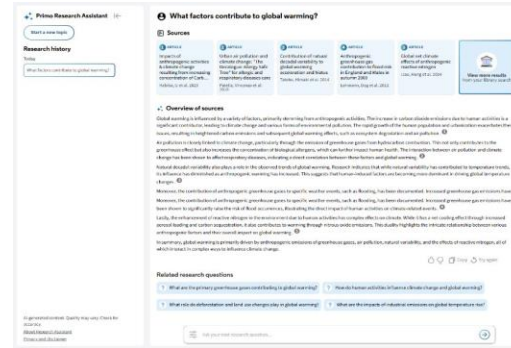
Slide 4: NU Library Databases with AI

Databases with built-in AI features

- [NU Digital Collections](#): optional "AI Mode" (next to search button)
 - must be logged in to My Account on [NU Library homepage](#) to see the AI mode
- [Statista](#) database: optional "Research AI" search aid button
- [EBSCO](#) databases offer Natural Language search option
- [JSTOR](#) Create a free account to access "Semantic Results"
- [Google Scholar Labs](#) Experimental AI search
- ProQuest Research Assistant available in some databases
- [TDM Studio](#) Text mining tool for newspapers
- [NUsearch](#) currently does not have an AI search bot.

NUsearch AI Assistant

- The benefits of the tools did not outweigh the risk of rolling it out
- It did not utilize everything the library provides access to: News sources (e.g. newspapers), Certain databases like JSTOR chose not to include their content into the assistant
- Relevant results weren't the best



Talking Points and Takeaways

Talking Points

- NU does not have a university-wide policy for/against using AI. Most students have tried GenAI, not all accept it.
- In your first class meeting, state whether you allow AI use for assignments; don't rely on the syllabus statement alone
- Ask whether it's even necessary to use AI for the task
- If you use AI, know which tools are best for your goal
- Consider using a search with `-ai` at the end of your search phrase (to omit AI engagement)
- Have an alternative assignment ready as an option for students who refuse to use AI tools
- Remind students to keep track of which AI tools they used for what task; many use several and need to be able to trace back what they used to write accurate citations

Takeaways

- Writing effective prompts is key to getting useful outputs: use the CLEAR method or TRACI method for guidance
- AI tools are still hallucinating; it is important to check all GenAI outputs for credibility
- Use lateral searching to verify AI outputs: open a new browser tab and do your own search
- Compare GenAI output against library resources: librarians can suggest relevant databases and other items
- Cite GenAI content (use format models from APA, Chicago, MLA, others; all have examples for citing AI output)
- [Artificial Intelligence at NU](#) (comprehensive website)

Questions? We can help!



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